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Case report

Adrenal cyst – a case report

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ABSTRACT

Adrenal cysts are classified as true cysts and pseudocysts. They are asymptomatic and an incidental finding in computed tomography and magnetic resonance imaging. True cysts have a definite lining, whereas pseudocysts lack a lining. Pseudocysts can be either hemorrhagic, parasitic or cystic degeneration of a malignant primary or metastatic tumor. We report a case of adrenal pseudocyst in a 5 year old child.

Introduction

Adrenal cysts , though rare, need to be considered for the differential diagnosis of an abdominal mass. The first report of an adrenal cyst was attributed by Doran to Greiselius , a Viennese physician in 1960.[1] It carries an incidence of 0.064% to 0.18% in autopsy series.[2]Most of them are asymptomatic and an incidental finding in computed tomography and magnetic resonance imaging. We hereby report a case of adrenal cyst , emphasizing on its classification and differential diagnosis.

Case presentation

A 5 year old female child came with complaints of abdominal discomfort and pain for one year duration. Ultrasound showed a retroperitoneal cystic lesion. Computerized tomography scan revealed a diagnosis of retroperitoneal cystic mass, (Figure-1) probably adrenal cyst. Left nephroureterectomy was done. The specimen was received in the histopathology department.

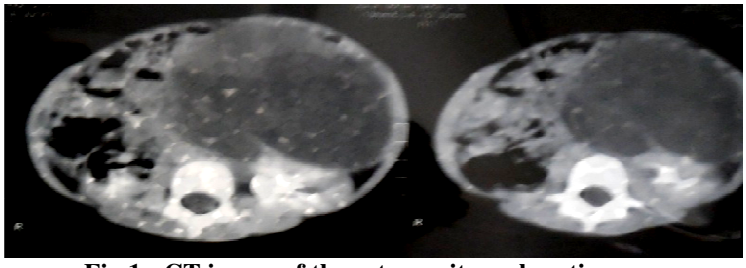

Fig 1 : CT image of the retroperitoneal cystic mass

Gross findings: The specimen consisted of a kidney measuring 8 x 4 x 3 cm with an attached cystic structure measuring 15 x 8 x 6 cm. Cut section showed a multiloculated cyst with a fibrous cyst wall. Brownish fluid was let out. Sections from the cyst wall were submitted for histopathologic evaluation. (Figure 2).

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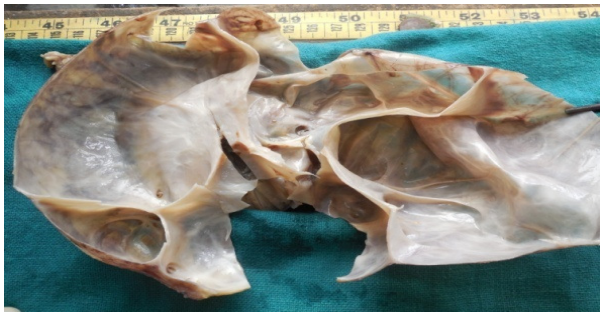

Fig 2: Cut section of the received specimen – multiloculated cyst

Microscopy: Sections studied from the cyst wall showed fibrocollagenous tissue with interspersed blood vessels. There was no epithelial or endothelial lining, rather, the wall showed flattened islands of adrenal cortical tissue (Figure 3, 4). There was no medullary tissue, tumor or hydatid disease. With this, the diagnosis of ADRENAL PSEUDOCYST was made.

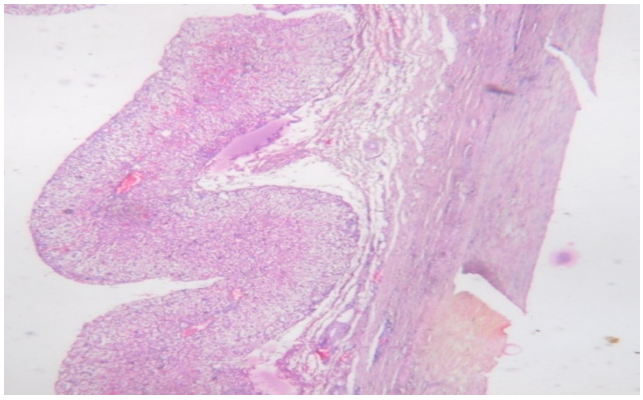

Fig 3: Scanner view of the cyst wall with Adjacent adrenal tissue

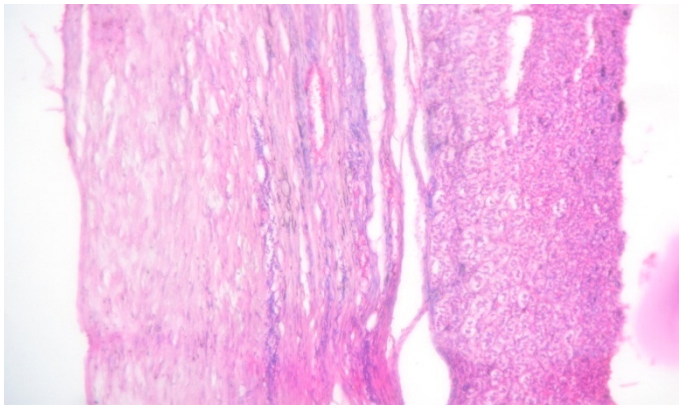

Fig 4 : Low power view of the cyst wall

Discussion

250 cases of adrenal cyst have been reported so far in literature.[3] Most of them remain asymptomatic and turn out to be incidental. They can occur at any age with a peak incidence between 4th and 5th decades. Female to male ratio is 3:1.[4] They become symptomatic as they increase in size and start displacing the adjacent viscera. The most reliable methods for preoperative diagnosis are ultrasonogram and CT scan. A classification for adrenal cyst has been proposed by Hodges and Ellis.[5] Adrenal cysts are classified as true cysts and pseudocysts. True cysts are those with an inner epithelial or endothelial lining and those lacking a lining epithelium or endothelium are called pseudocysts . True endothelial cysts, are usually lymphatic and represent a developmental anomaly. Vascular endothelial cyst (hemangioma) are very rare.[6] True epithelial cystsare uncommon and are usually cystic adenomas.[7] Pseudocysts lack a definite lining. They are classified as Hemorrhagic cysts, Malignant primary or metastatic tumor with cystic degeneration and Parasitic cysts (echinococcal cyst).[5] Of these, the hemorrhagic cyst is common and contains a thick fibrous wall. The contents are mostly blood stained. Adrenal cortical tissue will be seen as flattened islands or as a discrete mass alongside the fibrous wall. The postulated theory is organization and encapsulation of a hematoma within the adrenal gland that could have occurred due hypoxia, trauma, sepsis or a neoplasm. Most of the adrenal cysts are benign, with malignancy accounting for 7%.[8] So, the differential diagnosis generally lies between hemorrhagic pseudocyst and true lymphatic endothelial cysts, each accounting for 40% of the cases.

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